THREE NEW SPECIES AND ONE NEW SUBSPECIES OF COLPURINI (HETEROPTERA: COREIDAE) FROM THE PACIFIC ISLANDS[1]

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ABSTRACT: Three new species *Kerzhnerhygia nubila* from Irian Jaya (Dutch New Guinea), *Sciophyrella cerama* from Ceram Island, *Sciophyrella submacroptera* from Papua New Guinea, and one new subspecies *Brachylybas novoguinensis furcatus* from Irian Jaya, are described. Adult dorsal habitus of some species are illustrated, and drawings of pronotum, male genital capsule, and female genital plates are included.

KEY WORDS: Heteroptera, Coreidae, Colpurini, new species, Pacific Islands.

The Colpurini fauna of the Pacific Islands is poorly known due to its complex geography and the lack of intensive appropriate field research. What is presently known, nevertheless, indicates such a fauna as being outstanding in richness and interesting, with an unusually high rate of endemic elements (Brailovsky 2000, Brailovsky and Barrera 2003).

The paper is a further contribution to the knowledge of this tribe and provides the descriptions of three new species and one new subspecies.

Brachylybas novoguinensis furcatus, NEW SUBSPECIES

(Figs. 2-3, 16)

Description.-Male (holotype). Dorsal coloration. Head black, with postocular tubercle yellow and apex of tylus bright chestnut orange; antennal segments I to III bright chestnut orange, IV segment yellow with basal third bright chestnut orange; pronotum with anterior and anterolateral margins dark yellow; anterior lobe of pronotal disk dark brown with medial longitudinal furrow between calli black; posterior lobe of pronotal disk dark yellow with punctures reddish brown; clavus and corium reddish brown with claval vein, claval comissure, corial veins, apical margin, and costal margin dark yellow; hemelytral membrane dark brown to black with veins dark yellow; connexival segments reddish brown with anterior and posterior border yellow; dorsal abdominal segments dark to bright brownish orange. **Ventral coloration.** Head black; rostral segments dark yellow; thorax and abdominal sterna dark yellow with punctures reddish brown; prosternum, mesosternum, metasternum, coxae, fore and middle femora, tarsi, and genital capsule bright chestnut orange; trochanters yellow; hind femur and tibiae chestnut orange with one or two irregular yellow rings, one subbasal, and one near middle third. **Structure.** Rostrum reaching middle third of abdominal sternite V; humeral angles subtruncate, not exposed (Fig. 2). Genital capsule: Posteroventral edge with long, broad, bifid tube, directed outward and upward; each arm relatively elongate (Fig. 3).

Female. Coloration. Similar to male (holotype). Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates reddish brown.

Measurements. Male (female). Head length: 1.60 mm (1.58 mm); width across eyes: 1.76 mm (1.72 mm); interocular space: 1.16 mm (1.04 mm); antennal segments lengths: I, 1.80 mm (1.76 mm); II, 2.80 mm (2.84 mm); III, 2.08 mm (2.04 mm); IV, 1.40 mm (1.36 mm). Pronotal length: 1.96 mm

[1] Received on July 4, 2003. Accepted on January 6, 2004.

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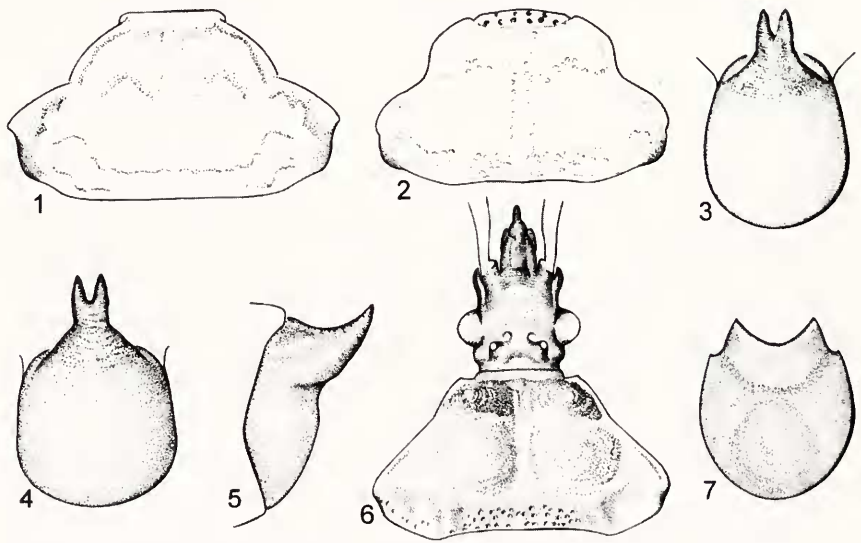
(2.04 mm); maximum width of anterior lobe: 2.12 mm (2.12 mm); maximum width of posterior lobe: 3.08 mm (3.08 mm): Scutellar length: 1.32 mm (1.32 mm); width: 1.38 mm (1.34 mm). Total body length: 9.08 mm (9.16 mm).

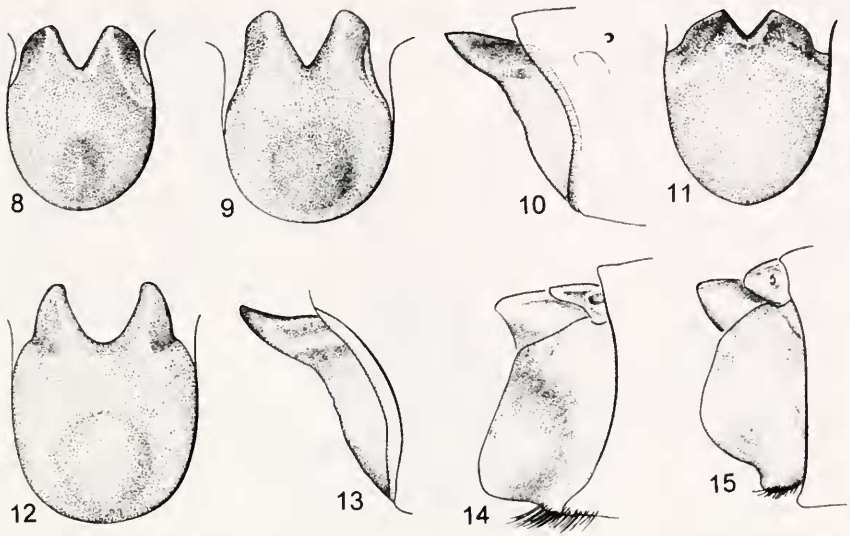
Type Material. Holotype: male, Irian Jaya (Dutch New Guinea), Jayawijaya Province, Angguruk-Tanggeam, 1500-1800 m, 28-29-IX-1991, A. Riedel. Deposited in Zoologische Staatssammlung, Munchen, Germany. **Paratypes:** 2 males, 2 females, same data as holotype. Deposited in Zoologische Staatssammlung, Munchen, Germany, and Colección Nacional de Insectos (CNIN), Instituto de Biología, UNAM, México; 1 male, Irian Jaya, Lordberg, 11-XII-1912, S. G. Burgers (Kais Augustafl Exp.). Deposited in Zoologisches Museum, Humboldt Universitat, Berlin, Germany.

Discussion. *Brachylybas novoguinensis furcatus* new subespecies, occurs in Irian Jaya and stands close to the nominal species *B. novoguinensis novoguinensis* Brailovsky & Martinez (1994) described from Papua New Guinea. In *B. n. furcatus* the humeral angles are subtruncate and not exposed (Fig. 2), the rostrum reaches the middle third of abdominal sternite V, and the posteroventral edge of the male genital capsule has a long, broad, and bifid tube, each arm being relatively elongate (Fig. 3). In *B. n. novoguinensis* the humeral angles are laminate, exposed, and subacute (Fig. 1), the rostrum reaches the anterior third of abdominal sternite V, and the tube of the male genital capsule has the arms shorter (Figs 4-5).

Etymology.-From the Latin *furcatus,* for forked, referring to the branched genital capsule.



Figures 1-2. Pronotum. 1. *Brachylybas novoguinensis novoguinensis* Brailovsky and Martinez. 2. *Brachylybas novoguinensis furcatus* NEW SUBSPECIES. Figures 3-5. Male genital capsule, caudal view (3-4), lateral view (5). 3. *Brachylybas novoguinensis furcatus* NEW SUBSPECIES. 4-5. *Brachylybas novoguinensis novoguinensis* Brailovsky and Martinez. Figures 6-7. *Kerzhnerhygia nubila* NEW SPECIES. 6. Head and pronotum. 7. Male genital capsule, caudal view.



Figures 8-15. *Sciophyrella* spp. 8-13. Male genital capsule, caudal view (8-9, 11-12), lateral view (10, 13). 8. *S. submacroptera* NEW SPECIES. 9-10. *S. cerama* NEW SPECIES. 11. *S. parva* Brailovsky and Barrera. 12-13. *S. morobe* Brailovsky and Barrera. 14-15. Female genital plates, lateral view. 14. *S. morobe* Brailovsky and Barrera. 15. *S. cerama* NEW SPECIES.

Kerzhnerhygia nubila, NEW SPECIES
(Figs. 6-7)

Description. Male (holotype). Dorsal coloration. Chestnut orange brown, with antennal segment IV (except the basal joint), anterolateral margins of pronotal disc, and apex of scutellum pale yellow; hemelytral membrane pale brown with veins darker; connexival segments bright reddish orange with posterior margin yellow; dorsal abdominal segments bright orange. **Ventral coloration.** Head bright reddish brown; rostral segments I and II dark yellow with chestnut brown reflections, and III and IV dark yellow; thorax bright reddish brown with acetabulae, upper margin of propleura, and irregular marks on mesopleura and metapleura yellow; coxae chestnut orange; trochanters and tarsi chestnut orange with yellow reflections; femora and tibiae chestnut orange with two yellow rings, one subbasal, the other near middle third; abdominal sterna and genital capsule pale chestnut orange with punctures darker; anterior lobe of metathoracic peritreme creamy yellow to pale chestnut orange, and posterior lobe pale chestnut orange; pleural abdominal segments orange with posterior margin yellow. **Structure.** Head longer than width across eyes; antenniferous tubercle armed, strongly projecting forward and inward, with the apex acutely rounded; antennal segment II the longest, III and IV subequal, and I longer than III and IV; buccula with weakly middle projection; rostrum reaching anterior margin of abdominal sternite VII; calli prominently raised, separated along midline by short longitudinal furrow; legs unarmed (Fig. 6). Genital capsule: Posteroventral edge U-shaped, with lateral arms broad, strongly produced (Fig. 7).

Female. Coloration. Similar to male (holotype). Connexival segments VIII and IX, dorsal abdominal segments VIII and IX, and genital plates bright orange with outer margin of paratergite VIII and IX yellow.

Measurements.-Male (female). Head length: 1.74 mm (1.62 mm); width across eyes: 1.40 mm (1.40 mm); interocular space: 0.90 mm (0.88 mm); interocellar space: 0.42 mm (0.44 mm); preocu-

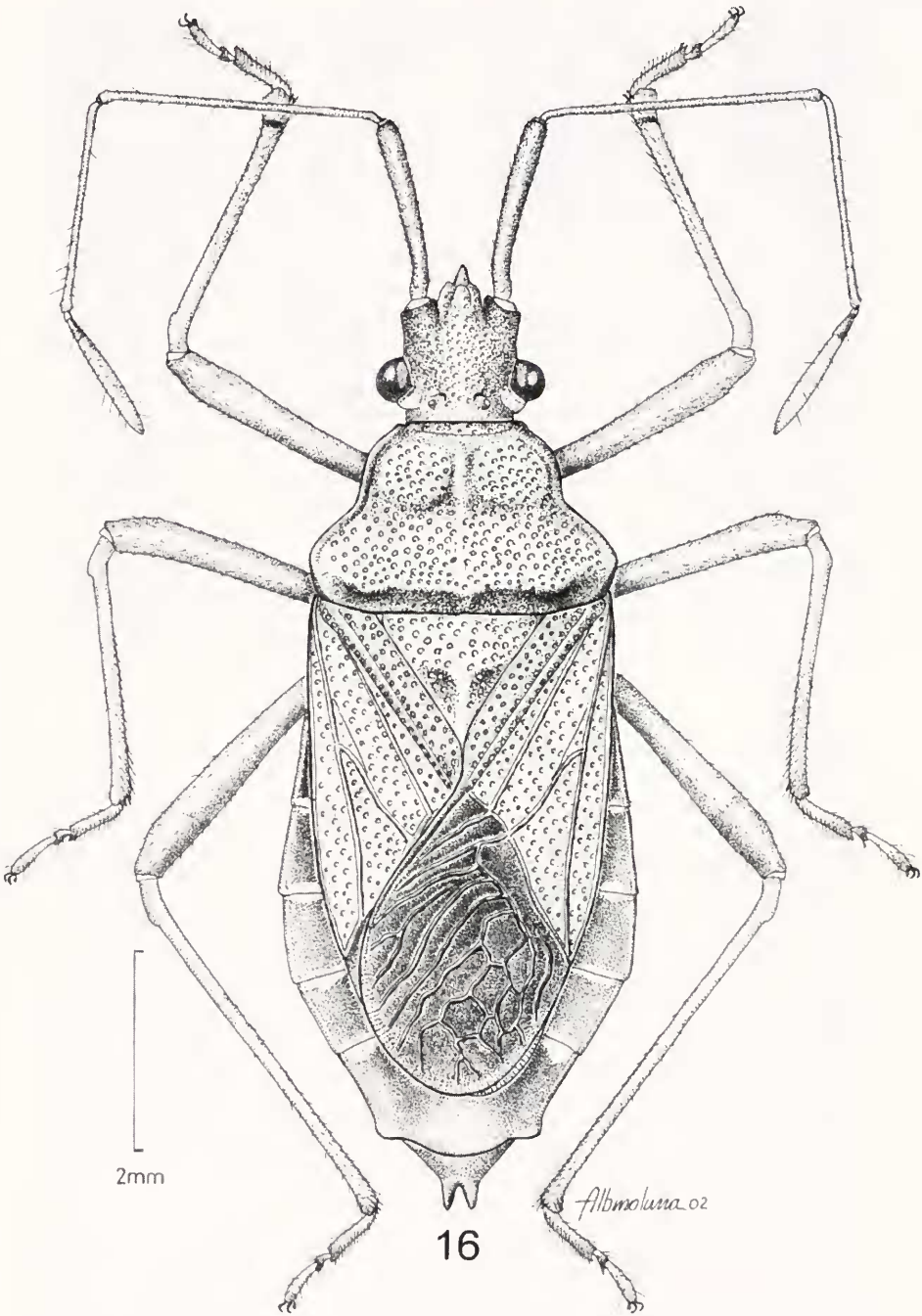


Figure 16. *Brachylybas novoguinensis furcatus* NEW SUBSPECIES, dorsal view. Male.

lar distance: 1.18 mm (1.18 mm); antennal segments lengths: I, 1.48 mm (1.48 mm); II, 2.64 mm (2.44 mm); III, 1.18 mm (1.22 mm); IV, 1.18 mm (1.22 mm). Pronotal length: 1.84 mm (1.80 mm); maximum width of anterior lobe: 1.92 mm (1.86 mm); maximum width of posterior lobe: 3.16 mm (3.32 mm): Scutellar length: 1.56 mm (1.60 mm); width: 1.48 mm (1.52 mm). Total body length: 9.80 mm (9.58 mm).

Type material.-Holotype: male, Dutch New Guinea, ger 29 km unterh d. Maanderberges a. Sepik, 11-16-VII-1913, S. G. Burgers (Kais Augustafl Exp.). Deposited in Zoologisches Museum, Humboldt Universitat, Berlin, Germany. **Paratypes:** 1 male, 1 female, same data as male holotype. Deposited in Zoologisches Museum, Humboldt Universitat, Berlin, Germany, and Colección Nacional de Insectos (CNIN), Instituto de Biología, UNAM, México; 1 female, Dutch New Guinea, Maanderberg, 10-16-VIII-1913, S. G. Burgers (Kais Augustafl Exp.). Deposited in Zoologisches Museum, Humboldt Universitat, Berlin, Germany.

Discussion.-Brailovsky (1993) described the genus *Kerzhnerhygia* and included two species *K. armata* and *K. robusta. Kerzhnerhygia nubila,* new species, is similar to *K. robusta* in having the femora unarmed, and is easily recognized by the head longer than wide (across the eyes), antennal segments III and IV subequal, and rostrum reaching anterior margin of abdominal sternite VII. In *K. robusta* the head is wider than long, antennal segment IV is shorter than III, and rostrum reaching anterior third of abdominal sternite III. In *K. armata* each femur are armed with two rows of long spines, the rostrum reaching the anterior third of abdominal sternite V or VI, the head is as long as wide, with antennal segment IV shorter than III, and the projection of the antenniferous tubercle clearly diverging anteriorly, not converging like in *K. nubila.*

Etymology. From the Latin *nubilus,* referring to the relatively undistinguished nature of the species.

Sciophyrella cerama, NEW SPECIES

(Figs. 9-10, 15)

Description.-Male (holotype). Dorsal coloration. Head bright dark orange brown, with pale yellow longitudinal band running from antenniferous tubercle to neck, comprising the space between eye and ocelli, and dorsal view of postocular tubercle; tylus pale bright chestnut orange; antennal segments I to III ochre yellow (IV mutilated); anterior lobe of pronotal disk bright dark orange brown with ochre yellow irregular mark at collar and calli; posterior lobe of pronotal disk bright pale chestnut orange with punctures reddish brown, external edge of humeral angles and irregular stripe at middle third yellow; scutellum, clavus, and corium pale chestnut orange with punctures reddish brown; hemelytral membrane ambarine with veins dark brown; connexivum dark orange with posterior border yellow; dorsal abdominal segments dark orange. **Ventral coloration.** Head bright dark orange brown with the area close to eyes yellow; rostral segments yellow with dark orange reflections; thorax ochre yellow with punctures reddish brown; anterior lobe of metathoracic peritreme creamy yellow, and posterior lobe dark orange; coxae dark orange brown; trochanters dark yellow; femora chestnut orange; tibiae chestnut orange with two yellow rings, one subbasal, the other near middle third; tarsi chestnut orange with yellow reflections; abdominal sterna and genital capsule ochre yellow with punctures reddish brown; pleural margin of abdominal sterna bright orange with posterior border yellow. **Structure.** Head longer than wide across the eyes, or as long as wide; tylus unarmed, apically globose or weakly bifid; antenniferous tubercle unarmed; genae with obtuse, nearly indistinct teeth; postocular tubercle protuberant, globose; ocelli weakly raised; rostrum reaching posterior border of abdominal sternite IV or anterior margin of V; pronotum bilobed; frontal and humeral angles rounded, not exposed; calli slightly convex; fore femur ventrally armed with small denticles; middle and hind femora unarmed or with few denticles; tibiae sulcated; scutellum longer than wide; hemelytra macropterous, reaching the apex of last abdominal segments; apical margin of endocori-

um impunctate. Genital capsule: Posteroventral edge with deep U-shaped notch, enclosed by two conspicuously robust and elongate arms; space between arms wider than 0.45 mm (Figs. 9-10).

Female.-Coloration. Similar to male (holotype). Connexival segments VIII and IX dark orange with posterior border yellow; dorsal abdominal segments VIII and IX dark orange; genital plates ochre yellow with punctures reddish brown. Structure. Genitalia: Gonocoxae I enlarged dorsoventrally, in caudal view closed, in lateral view uniformly convex, not protruding, ventrally projected in a short and blunt lobe (Fig. 15).

Measurements.-Male (female). Head length: 1.68 mm (1.76 mm); width across eyes: 1.64 mm (1.76 mm); interocular space: 0.92 mm (0.96 mm); interocellar space: 0.46 mm (0.48 mm); preocular distance: 1.02 mm (1.08 mm); antennal segments lengths: I, 1.82 mm (1.82 mm); II, 2.62 mm (2.64 mm); III, 1.84 mm (1.87 mm); IV, mutilated. Pronotal length: 2.30 mm (2.44 mm); maximum width of anterior lobe: 2.04 mm (2.32 mm); maximum width of posterior lobe: 3.56 mm (4.00 mm): Scutellar length: 1.88 mm (2.04 mm); width: 1.64 mm (1.88 mm). Total body length: 10.70 mm (11.76 mm).

Type material.-Holotype: male, Ceram Island, 1913, E. Stresemann. Deposited in The Natural History Museum, London. **Paratypes:** 3 males, 2 females, same data as male holotype. Deposited in The Natural History Museum, London, and Colección Nacional de Insectos (CNIN), Instituto de Biología, UNAM, México.

Discussion.-Close to *S. morobe* Brailovsky & Barrera (1996) described from Papua New Guinea and Dutch New Guinea, with scutellum clearly longer than wide, antennal segment III longer than I, frontal angles rounded and not exposed, tylus apically globose to weakly bifid, postocular tubercle protuberant, antenniferous tubercle unarmed, and apical margin of endocorium impunctate. Both species are distinguished by the shape of the male and female genitalia. In *S. cerama,* recorded from the Island of Ceram, the lateral arms of the male genital capsule are remarkably broad and elongate (Fig. 9-10), the gonocoxae I are enlarged dorsoventrally and in lateral view uniformly convex (Fig. 15). In *S. morobe* the lateral arms are elongate and relatively broad (Figs. 12-13), and the gonocoxae I with upper third almost straight, and inner third directed outward, and conspicuously protuberant (Fig. 14).

Etymology.-The name is derived from the type locality.

Sciophyrella submacroptera, NEW SPECIES
(Fig. 8)

Description.-Male (holotype). Dorsal coloration. Head pale chestnut orange with yellow longitudinal band running from antenniferous tubercle to the neck, comprising the space between eye and ocelli, and dorsal view of postocular tubercle; antennal segments I to III ochre yellow, IV ochre yellow with basal third and apex dark orange brown; pronotum, including the punctures pale chestnut orange with lateral margins of collar, anterolateral borders, external edge of humeral angles, and an irregular spotting at calli and at middle lobe of pronotal disc yellow; clavus and corium pale chestnut orange; hemelytral membrane pale ambarine, with veins dark brown; connexivum dark orange brown with posterior border yellow; dorsal abdominal segments dark orange. **Ventral coloration.** Including the genital capsule pale chestnut orange on an ochre yellow background; rostral segments I, III, and IV ochre yellow, II dark orange brown; anterior lobe of metathoracic peritreme creamy yellow, posterior lobe dark yellow; coxae dark chestnut brown; trochanters ochre yellow with outer margin dark brown; femora and tibiae dark chestnut orange with two yellow rings one subbasal, the other near middle third (rings of fore femur difficult to see); tarsi dark chestnut orange with yellow reflections. **Structure.** Head wider than long or as long as wide; tylus unarmed, apically globose or weakly bifid; antenniferous tubercle and genae unarmed; postocular tubercle protuberant, globose; ocelli weakly raised; rostrum reaching middle third of abdominal sternite IV; pronotum bilobed; frontal

angles round to slightly produced; humeral angles rounded, not exposed; calli convex; femora unarmed or ventrally with few denticles; tibiae sulcate; scutellum longer than wide or as long as wide; hemelytra submacropterus, reaching posterior border of abdominal segment VI or anterior border of VII; apical margin of endocorium impunctate. Genital capsule: Posteroventral edge with deep U-shaped notch, enclosed by two short and stout arms; space between arms shorter than 0.40 mm (Fig. 8).

Female. Coloration. Similar to male holotype. Connexival segments VIII and IX dark orange brown with posterior border yellow; dorsal abdominal segments VIII and IX dark orange; genital plates pale chestnut orange on an ochre yellow background. Structure. Genitalia: Gonocoxae 1 enlarged dorsoventrally, in caudal view closed, in lateral view uniformly convex, not protruding, and ventrally projected in a short and blunt lobe.

Measurements. Male (female). Head length: 1.52 mm (1.48 mm); width across eyes: 1.56 mm (1.48 mm); interocular space: 0.84 mm (0.80 mm); interocellar space: 0.44 mm (0.42 mm); preocular distance: 0.92 mm (0.94 mm); antennal segments lengths: I, 1.40 mm (1.36 mm); II, 1.96 mm (1.80 mm); III, 1.36 mm (1.24 mm); IV, 1.36 mm (1.24 mm). Pronotal length: 1.92 mm (1.76 mm); maximum width of anterior lobe: 1.74 mm (1.84 mm); maximum width of posterior lobe: 2.76 mm (2.64 mm): Scutellar length: 1.32 mm (1.40 mm); width: 1.32 mm (1.20 mm). Total body length: 8.82 mm (9.18 mm).

Type material. Holotype: male, Papua New Guinea, Kokoda, 1200', IV-1933, L. E. Cheesman. Deposited in The Natural History Museum, London. **Paratypes:** 1 male, 1 female, same data as male holotype. Deposited in The Natural History Museum, London, and Colección Nacional de Insectos (CNIN), Instituto de Biología, UNAM, México; 2 females, Papua New Guinea, Kokoda, 1200', VI-1933, L. E. Cheesman. Deposited in The Natural History Museum, London.

Discussion. *Sciophyrella submacroptera* is the only species in the genus with submacropterous condition on the hemelytra. All the previously known species are macropterous (Brailovsky & Barrera 1996). Like *S. parva* Brailovsky & Barrera (1996) the space between the arms of the male genital capsule is less than 0.40 mm, and the maximum length of the body is less than 9.40 mm in both sexes. In *S. parva* the posteroventral edge of the male genital capsule has a small V-shaped notch with lateral arms conspicuously shorter (Fig. 11). In *S. submacroptera,* the lateral arms of the male genital capsule are longer with the notch deep and U-shaped (Fig. 8). The female genital plates of both species are similar.

Etymology.-Named for its submacropterous condition.

ACKNOWLEDGMENTS

We thank the following colleagues and institutions for the loan of specimens and other assistance relevant to this study: Mick Webb (The Natural History Museum, London), Juergen Deckert (Zoologisches Museum, Humboldt Universitat, Berlin, Germany), and Klaus Schonitzer (Zoologische Staatssammlung Munchen, Germany). Special thanks to Albino Luna for the dorsal view illustrations.

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CORRIGENDA

On a recently published paper [Kight and Hashemi, *Entomological News* 114(2): 61-68], several Greek characters were misprinted. On page 63, where it reads "Data were analyzed... with a = 0.05." it should have read "Data were analyzed... with α= 0.05." On pages 63 and 65, several sentences include an "X^2 " or an "X 2". In all cases, it should have been printed as χ^2.